

FORM PTO-1449
(REV. 7-85)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

Sheet 1 of 2

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

ATTY. DOCKET NO.
DM-7029 DIV
APPLICATION NO.
10/820,307
APPLICANT
BROWN ET AL.
FILING DATE
April 8, 2004

Group
1647

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
	AL						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	OFFICE	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
56	AM	JP9191882	7/29/97	Japan			<input type="checkbox"/>	<input type="checkbox"/>
	AN						<input type="checkbox"/>	<input type="checkbox"/>
	AO						<input type="checkbox"/>	<input type="checkbox"/>
	AP						<input type="checkbox"/>	<input type="checkbox"/>
	AQ						<input type="checkbox"/>	<input type="checkbox"/>

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.)

56	AR	NCBI Accession No. gi:1841341, Yokoyama, et al., March 18, 1999
11	AS	Yang, et al. (1997) Proc. Natl. Acad. Sci. 94:4017-4021
11	AT	Pongs (1992) Physiological Reviews 72(4):S69-S88

EXAMINER

Stephen Guckler

DATE CONSIDERED

10/16/03

*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609: Draw a line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.

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56	2AA	Jan, et al. (1992) Annual Rev. Physiol. 54:537-555
11	2AB	Catterall (1995) Annu. Rev. Biochem. 64:493-531
11	2AC	Yokoyama, et al. (1996) DNA Research 3:311-320
11	2AD	Editor: Cook (1990) - Potassium Channels, Structure, Classification, Function and Therapeutic Potential; Ellis Horwood Ltd. Publisher
	AE	
	AF	
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7/12/04

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10/820,307

**INFORMATION DISCLOSURE STATEMENT
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GROUP **1649**

U. S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
Sc	AA 5 1 7 3 4 8 9	12/22/92	Earl et al.	514	252	
1/	AB 5 4 1 4 0 0 4	05/09/95	Wilkerson et al.	514	339	

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO
Sc	AC 9 7 2 3 5 9 8	07/03/97	PCT			
1/	AD 9 7 2 3 6 3 2	07/03/97	PCT			
1/	AE 9 9 0 7 8 3 2	02/18/99	PCT			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Sc	AF	Shen et al., "Improved expression cloning using receptor genes and Epstein-Barr virus ori-containing vectors". (1995) <i>Gene</i> , 156:235-239.
1/	AG	Sudgen et al., "A vector that replicates as a plasmid and can be efficiently selected in B-lymphoblasts transformed by Epstein-Barr virus". (1985) <i>Mol. Cell. Biol.</i> , 5:410-413.
1/	AH	Yang et al., "Functional expression of two KvLQT1-related potassium channels responsible for an inherited idiopathic epilepsy". (1998) <i>J. Biol. Chem.</i> , 273(31):19419-19423.
1/	AI	Charlier et al., "A pore mutation in a novel KQT-like potassium channel gene in an idiopathic epilepsy family". (1998) <i>Nature Genetics</i> , 18: 53-55.
1/	AJ	Biervert et al., "A potassium channel mutation in neonatal human epilepsy". (1998) <i>Science</i> , 279:403-406.
1/	AK	Singh et al., "A novel potassium channel gene, KCNQ2, is mutated in an inherited epilepsy of newborns". (1998) <i>Nature Genetics</i> , 18:25-29.
1/	AL	Brown, D.A., "M-Currents: An update". (1988) <i>Trends Neurosci.</i> , 11:294-299.
1/	AM	Wang et al., "KCNQ2 and KCNQ3 potassium channel subunits: Molecular correlates of the M-channel". (1998) <i>Science</i> , 282:1890-1893.
1/	AN	D.A. Brown, in <i>Ion Channels</i> . T. Narahashi, Ed. (Plenum, New York, 1988), pp. 55-94.
1/	AO	W.M. Yamada, C. Koch, P.R. Adams, in <i>Methods in Neuronal Modeling</i> , C. Koch and I. Segev, Eds. (Bradford, Cambridge, 1989), pp. 97-133.
1/	AP	Wang, H.S. & McKinnon, D., "Potassium currents in rat prevertebral and paravertebral sympathetic neurones: control of firing properties". (1995) <i>J. Physiol.</i> , 485(2):319-335.
1/	AQ	Brown, D.A. & Adams, P.R., "Muscarinic suppression of a novel voltage-sensitive K ⁺ current in a vertebrate neurone". (1980) <i>Nature</i> , 283:673-676.
1/	AR	Constanti, A. & Brown, D.A., "M-currents in voltage-clamped mammalian sympathetic neurones". (1981) <i>Neurosci Lett.</i> , 24:289-294.

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U. S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

56	AS	Storm, J.F., "An after-hyperpolarization of medium duration in rat hippocampal pyramidal cells". (1989) <i>J. Physiol.</i> , 409:171-190.
4	AT	Constanti, A. & Sim, J.A., "Calcium-dependent potassium conductance in guinea-pig olfactory cortex neurones <i>in vitro</i> ". (1987) <i>J. Physiol.</i> , 387:173-194.
11	AU	Womble, M.D. & Moises, H.C., "Muscarinic inhibition of M-current and a potassium leak conductance in neurones of the rat basolateral amygdala". (1992) <i>J. Physiol.</i> , 457:93-114.
11	AV	Wang et al., "Positional cloning of a novel potassium channel gene: KVLQT1 mutations cause cardiac arrhythmias". (1996) <i>Nature Genetics</i> , 12:17.
4	AW	Wei et al., "Eight potassium channel families revealed by the <i>C. elegans</i> genome project". (1996) <i>Neuropharmacol.</i> , 35(7):805-829.
11	AX	Sanguinetti et al., "Coassembly of K _v LQT1 and minK (IsK) proteins to form cardiac I _{ks} potassium channel". (1996) <i>Nature</i> , 384(7):80-83.
11	AY	Barhanin et al., "K _v LQT1 and IsK (minK) proteins associate to form the I _{ks} cardiac potassium current". (1996) <i>Nature</i> 384(7):78-80.
11	AZ	MacKinnon, R. & Yellon, G., "Mutations affecting TEA blockade and ion permeation in voltage-activated K ⁺ channels". (1990) <i>Science</i> , 250:276-279.
11	BA	Heginbotham, L. & MacKinnon, R., "The aromatic binding site for tetraethylammonium ion on potassium channels". (1992) <i>Neuron</i> , 8:483-491.
11	BB	Marrion et al., "Multiple kinetic states underlying macroscopic M-currents in bullfrog sympathetic neurons". (1992) <i>Proc. R. Soc. Lond., B</i> 248:207-214.
11	BC	Cassell, J.F. & McLachlan, E.M., "Muscarinic agonists block five different potassium conductances in guinea-pig sympathetic neurones". (1987) <i>Br. J. Pharmacol.</i> , 91:259-261.
11	BD	Wang, H.S. & McKinnon, D., "Modulation of inwardly rectifying currents in rat sympathetic neurones by muscarinic receptors". (1996) <i>J. Physiol.</i> , 492(2):467-478.
11	BE	Aiken et al., "Reduction of spike frequency adaptation and blockade of M-current in rat CA1 pyramidal neurones by linopirdine (DuP 996), a neurotransmitter release enhancer". (1995) <i>Br. J. Pharmacol.</i> , 115:1163-1168.

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56	BF	Lamas et al., "Effects of a cognition-enhancer, linopirdine (DuP 996), on M-type potassium currents (I _{K(M)}) and some other voltage- and ligand-gated membrane currents in rat sympathetic neurons". (1997) <i>Eur. J. Neurosci.</i> , 9:605-617.
11	BG	Costa, A.M.N. & Brown, B.S., "Inhibition of M-current in cultured rat superior cervical ganglia by linopirdine: Mechanism of action studies". (1997) <i>Neuropharmacol.</i> , 36:1747-1753.
11	BH	Dixon et al., "Role of the Kv4.3 K ⁺ channel in ventricular muscle". (1996) <i>Circ. Res.</i> , 79:659-668.
11	BI	Dixon, J.E. & McKinnon, D., "Potassium channel mRNA expression in prevertebral and paravertebral sympathetic neurons". (1996) <i>Eur. J. Neurosci.</i> , 8:183-191.
11	BJ	Stansfeld et al., "A physiological role for ether-à-go-go K ⁺ channels?" (1997) <i>Trends Neurosci.</i> , 20:13-14.
11	BK	Shi et al., "Identification of two nervous system-specific members of the <i>erg</i> potassium channel gene family". (1997) <i>J. Neurosci.</i> , 17(24):9423-9432.
11	BL	Shi et al., "Cloning of a mammalian <i>elk</i> potassium channel gene and EAG mRNA distribution in rat sympathetic ganglia". (1998) <i>J. Physiol.</i> , 511:675-682.
11	BM	Lampe, B.W. & Brown, B.S., "Electrophysiological effects of DuP 996 on hippocampal CA1 neurons". (1991) <i>Soc. Neurosci.</i> , Abstract No. 17:1588.
11	BN	Iannotti et al., "The expression pattern KCNQ2 splice variants in neuronal proliferation and differentiation". (1998), <i>Soc. Neurosci.</i> , Abstract No. 330.14, 24:829.
11	BO	Wang et al., "The KQT2 channel is a molecular correlate of the M-channel in sympathetic neurons". (1998), <i>Soc. Neurosci.</i> , Abstract No. 792.1, 24:1984.
11	BP	Dworetzky et al., "Cloning and expression of mouse KCNQ2: A nervous-system specific voltage-gated potassium channel". (1998) <i>Soc. Neurosci.</i> , Abstract No. 813.1, 24:2032.
11	BQ	Gribkoff et al., "Characterization of the novel mouse brain-specific voltage-dependent potassium channel KCNQ2 expressed in xehopus oocytes and CHO cells". (1998) <i>Soc. Neurosci.</i> , Abstract No. 813.10, 24:2033.

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